

## 750W, Rugged, Industrial Quality AC/DC Power Supply with PFC-Input PFC 319F-FT Series

- Electronic power factor correction (PFC)
- Rugged, industrial quality
- Field-proven design
- Full electronic protection
- N+1 redundancy as an option



**FF4W chassis:  
internal side fans**



**FF4 chassis:  
external side fans**

The PFC 319F Series rugged, industrial quality AC/DC power supply with power factor corrected input utilizes a field proven technology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is by three high quality fans and additional conduction via the baseplate. The fans are either enclosed within the chassis (FF4W) or are attached to the outside of the chassis (FF4). The fans draw air into the unit. Both mechanical formats have the same total footprint. An optional built-in redundancy diode allows for parallel and N+1 operation. Additional ruggedizing and conformal coating are available on request for applications that require immunity to high levels of shock, vibration and humidity. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. All of our products are manufactured at our plant under strict quality control.

### SPECIFICATIONS

#### Input Voltage

90-264Vac, 47... 63Hz  
Input current 4.7A max at 90V  
Power Factor is better than 0.97 at full load for the entire input range.  
Meets EN61000-3-2

#### Input Protection

Inrush current limiting  
Varistor  
Internal safety fuse  
Lower voltage than the specified minimum input will not damage the unit

#### Isolation

2250VDC input to chassis  
5000VDC input to output  
10mm spacing  
500VDC output to chassis

#### Standards

Designed to meet EN 60950-1 and corresponding UL and CSA standards

#### EMI

EN55022 Class A with margins

#### Switching Frequency

50-150kHz Boost section (dependent on the load)  
55kHz +/-3kHz for the DC/DC (half-bridge) section

#### Hold Up Time

Min. 10ms at any input for 5% drop in the output voltage

#### Output Voltage/Current

24V/31A, 48V/16A or 125V/6A are standard.  
The output is floating, either terminal can be grounded  
Other outputs on request

#### Redundancy Diode

Not installed  
Available as option

#### Line/Load Regulation

±1% combined from zero load to full load

#### Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

#### Output Ripple / Noise

Less than 1% peak-to-peak or 0.2% RMS of the output voltage (20MHz BW)

#### Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)  
Thermal shutdown in case of insufficient cooling (self resetting)

#### Output Over-voltage Protection

Second regulator loop.  
Typically set at 120% of nominal output voltage

#### Efficiency

Output voltage dependent.  
Typically 80% at full load

#### Operating Temperature Range

0 °C to 50 °C cold plate temperature for full specification  
Extended temperature range available

#### Temperature Drift

0.03% per °C over operating temperature range

#### Cooling

Forced air by high quality built-in fans and conduction to customer heat sink or chassis  
Fans draw air into the unit

#### Environmental Protection

Basic ruggedizing  
Heavy ruggedizing and conformal coating available as an option

#### Shock/Vibration

IEC 61373 Cat 1 A&B

#### Humidity

5 - 95% non-condensing

#### MTBF

130,000 hours @ 45 °C (fans excluded)  
Demonstrated MTBF is significantly higher

#### Indicators

Internal 'Output ON' LED visible through cooling slots

#### Control Input

None on standard version  
Available as option

#### Alarm Outputs

None on standard version  
Available as option

#### Package/Dimensions (W x H x L)

FF4: 156 x 62 x 356 mm (6.2" x 2.4" x 14") or  
FF4W: 156 x 65 x 356 mm  
6.2" x 2.5" x 14" including terminal block, flanges and fans.  
Mounting holes are clear

#### Weight

2.5 kg (5.5 lb)

#### Connections

12-pole barrier type terminal block with 3/8" spacing

#### RoHS Compliance

Fully compliant

#### Warranty

Two years subject to application within good engineering practice



European Stocking Distributor  
Phone: +41 44 730 33 53

Email: [sales@hvps-condatas.com](mailto:sales@hvps-condatas.com) / [www.hvps-condatas.com](http://www.hvps-condatas.com)  
Rietbachstrasse 7, 8952 Schlieren (ZH), Switzerland